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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/622,229

07/18/2003

Joseph F. Bringley

86583PAL

4664

7590

05/26/2005

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EXAMINER

SCHWARTZ, PAMELA R

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,229

Applicant(s)

BRINGLEY ET AL.

Examiner

Pamela R. Schwartz

Art Unit

1774

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/7/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Since both a support and a binder are required to form an image receiving element in accordance with applicants' invention (see page 9), by reciting an image receiving element it is assumed that applicants' are inherently reciting that these required elements of their invention are present.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 and 12-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Darsillo et al. (6,365,264). The reference discloses a recording medium having a glossy coating thereon with first and second groups of particles (see the abstract). The first particles may be pyrogenic silica and may be treated to make them cationic with aluminum chlorohydrate (see col. 4, line 59 to col. 5, line 10). This appears to be a preferred embodiment as set forth since the reference states that “[i]t is sometimes preferred that cationic particles be included in the glossy coating” (col. 5, lines 1-2). This treatment should inherently create an alumino silicate shell on the particles. The ratio of the groups of particles to each other overlaps with those instantly claimed (see the abstract). The second group of particles may be colloidal silica and may be surface treated (see col. 8, line 51 to col. 9, line 9). The same language with respect to making the surface cationic is used with respect to the second group of particles. Therefore, coating silica particles to make them cationic would also be considered a preferred embodiment with respect to this second group of particles. The reference discloses

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treatment with either an inorganic or an organic cationic modifier. The reference discloses for this purpose inorganic salts, such as aluminum chlorohydrate, organic silanes, or a polymer such as a polyamine (see col. 5, lines 1-10). The first group of particles has a primary particle size of less than about 100 nm with aggregates of from about 100 to about 500 nm. The second set of particles are less than about 50% of the mean diameter of these aggregates (see the abstract). Due to the small particle range set forth at col. 5, lines 11-42, the first group of particles would inherently meet the standard deviation values of claims 13 and 14. Furthermore, the reference suggests that both sets of particles can have diameters that are all substantially the same (see col. 6, lines 51-63 and col. 8, lines 14-28). The larger particles may be pyrogenic or fumed silica. The smaller particles may be colloidal silica. The colloidal silica set forth in Example one is spherical. Pyrogenic silica is normally formed into chains that would be of irregular shape. Therefore, these aspects would have been inherent.

3. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darsillo et al. (6,365,264) for reasons of record and for reasons given below.

4. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Darsillo et al. (6,365,264) for reasons of record and further in view of Bi et al. (2004/0197498) and Alexander et al. (3,007,878) for reasons given below. Bi et al. discloses treating silica particles to make them cationic for inclusion in an ink jet recording sheet [0027-0031]. The treatment may be with a hydroxyl-containing polyvalent metal salt or a cationic resin. The reference discloses that such a polyvalent metal salt with disclosed in Alexander et al. (3,007,878) and incorporates this reference.

Figure 1 of Alexander et al. shows the surface of silica that has been complexed with a metal oxyhydroxy material. This complex appears consistent with applicants' claims 24 and 25. Based upon the preference of the primary reference for cationic treatment of silica, the disclosure of Bi et al. that the teachings of Alexander et al. are relevant to treat silica to render it cationic for inclusion of ink jet recording media, and the teachings of Alexander to formation of what is an aluminum oxyhydroxy complex, it would have been obvious to one of ordinary skill in the art to treat the silica of the primary reference as set forth in Bi et al. and Alexander et al. to render the silica cationic.

5. Applicant's arguments filed 3/21/05 have been fully considered but they are not persuasive. However, have overcome several grounds of rejection by amending the claims to incorporate the subject matter of claim 2.

With respect to the rejection over Darsillo et al., applicants' arguments are not persuasive for the following reasons. Darsillo et al. need not demonstrate the "advantages" of applicants' invention to render applicants' claimed invention obvious. In fact, Darsillo et al. suggest applicants' advantages of gloss and porosity by disclosure of both of these properties. With respect to fade resistance, the reference preference to inclusion of particles that have been treated to be cationic inherently addresses this issue. It is well known in the art that cationic materials will fix anionic dyes commonly used in ink jet recording, making them less likely to migrate through the medium and less subject to bleeding, fading, etc.

Applicants' argument that Darsillo et al. "teaches away" from the instant invention is unclear. Applicants have no claims that limit both the porosity and the gloss of the

medium. Therefore, what Darsillo et al. suggests as the relationship between these properties is not relevant to applicants' claims.

Finally, applicants' showings in Table 1 have been given careful consideration but are not persuasive since comparisons are not made with respect to the closest prior art. Since Darsillo et al. clearly indicate a preference for cationically treated particles, comparisons with only untreated particles or ratios of small to large particles that do not permit the dense packing preferred by the reference and do not represent the preferred ratios of groups of particles set forth in col. 9 of the reference are unpersuasive. All of the examples of the reference appear to include at least one group of particles that have been surface-treated. To the extent that Table 1 provides results that are neither identified in the prior art or expected by one of ordinary skill in the art, applicants' claims are not commensurate in scope with these showings.

Contrary to applicants' assertions, the cationic surface treatments of the prior art are image fade resistant materials. Applicants note that aluminasilicate polymers of the instant invention claim 23 "are structurally and chemically distinct from "alumina chlorohydrate"- taught by Darsillo." As pointed out by applicants' this is merely an example in Darsillo et al. and as such is not limiting. More importantly, however, applicants' specification does not define aluminosilicate structurally or chemically and merely provides by reference a description of some materials that would be suitable. There is no limiting definition in applicants' disclosure and the examiner is required to give the language of the claims its broadest reasonable interpretation.

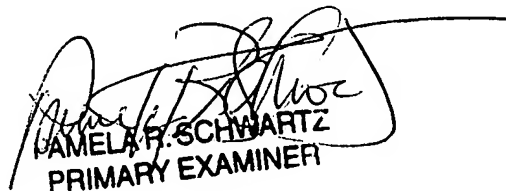
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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pamela Schwartz whose telephone number is (571) 272-1528.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRSchwartz
May 20, 2005



PAMELA F. SCHWARTZ
PRIMARY EXAMINER